

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 16:04:00 ON 10 FEB 2003

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FILE COVERS 1907 - 10 Feb 2003 VOL 138 ISS 7

FILE LAST UPDATED: 9 Feb 2003 (20030209/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE L33

L6 9073 SEA FILE=WPIX ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR ALUMINIUM) AND (CUP# OR BELL# OR ATOMI?)  
L18 4789 SEA FILE=HCAPLUS ABB=ON L6 AND COATING#  
L19 380 SEA FILE=HCAPLUS ABB=ON COAT?(3A)(BELL# OR CUP#)  
L20 42 SEA FILE=HCAPLUS ABB=ON L18 AND L19  
L21 4 SEA FILE=HCAPLUS ABB=ON L20 AND PAINT?  
L22 6 SEA FILE=HCAPLUS ABB=ON L20 AND ELECTROSTA?  
L23 0 SEA FILE=HCAPLUS ABB=ON L20 AND (SILICON OR SI)(2A)(C OR CARBON)  
L24 2 SEA FILE=HCAPLUS ABB=ON L20 AND WEAR?(3A)(RESIST? OR INHIBIT?)  
L25 34194 SEA FILE=HCAPLUS ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR ALUMINIUM)(5A)(CUP# OR BELL# OR ATOMI?)  
L26 25 SEA FILE=HCAPLUS ABB=ON L19 AND L25  
L28 14 SEA FILE=HCAPLUS ABB=ON L26 AND COATING?/SC, SX, AB, BI  
L29 0 SEA FILE=HCAPLUS ABB=ON L28 AND WEAR?  
L30 0 SEA FILE=HCAPLUS ABB=ON L28 AND ?WEAR?  
L31 2 SEA FILE=HCAPLUS ABB=ON L26 AND ELECTROSTA?  
L32 2 SEA FILE=HCAPLUS ABB=ON L26 AND PAINT?  
L33 10 SEA FILE=HCAPLUS ABB=ON (L21 OR L22 OR L23 OR L24) OR (L29 OR L30 OR L31 OR L32)

=> FILE WSCA

FILE 'WSCA' ENTERED AT 16:04:12 ON 10 FEB 2003

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FILE LAST UPDATED: 30 JAN 2003

<20030130/UP>

FILE COVERS 1976 TO DATE

=> D QUE L41

L6 9073 SEA FILE=WPIX ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR ALUMINIUM) AND (CUP# OR BELL# OR ATOMI?)  
L18 4789 SEA FILE=HCAPLUS ABB=ON L6 AND COATING#  
L19 380 SEA FILE=HCAPLUS ABB=ON COAT?(3A)(BELL# OR CUP#)

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

L20 42 SEA FILE=HCAPLUS ABB=ON L18 AND L19  
L21 4 SEA FILE=HCAPLUS ABB=ON L20 AND PAINT?  
L22 6 SEA FILE=HCAPLUS ABB=ON L20 AND ELECTROSTA?  
L23 0 SEA FILE=HCAPLUS ABB=ON L20 AND (SILICON OR SI) (2A) (C OR CARBON)  
L24 2 SEA FILE=HCAPLUS ABB=ON L20 AND WEAR? (3A) (RESIST? OR INHIBIT?)  
L25 34194 SEA FILE=HCAPLUS ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR ALUMINIUM) (5A) (CUP# OR BELL# OR ATOMI?)  
L26 25 SEA FILE=HCAPLUS ABB=ON L19 AND L25  
L28 14 SEA FILE=HCAPLUS ABB=ON L26 AND COATING?/SC, SX, AB, BI  
L29 0 SEA FILE=HCAPLUS ABB=ON L28 AND WEAR?  
L30 0 SEA FILE=HCAPLUS ABB=ON L28 AND ?WEAR?  
L31 2 SEA FILE=HCAPLUS ABB=ON L26 AND ELECTROSTA?  
L32 2 SEA FILE=HCAPLUS ABB=ON L26 AND PAINT?  
L35 5 SEA FILE=WSCA ABB=ON (L21 OR L22 OR L23 OR L24) OR (L29 OR L30 OR L31 OR L32)  
L36 0 SEA FILE=WSCA ABB=ON ELECTROSTIC SPRAYING+NT/CT  
L37 782 SEA FILE=WSCA ABB=ON ELECTROSTATIC SPRAYING+NT/CT  
L39 6 SEA FILE=WSCA ABB=ON L37 AND BELL? (2A) COATING?  
L40 10 SEA FILE=WSCA ABB=ON BELL? (2A) COATING?  
L41 13 SEA FILE=WSCA ABB=ON (L35 OR L36) OR L39 OR L40

=> FILE WPIX

FILE 'WPIX' ENTERED AT 16:04:25 ON 10 FEB 2003

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FILE LAST UPDATED: 6 FEB 2003 <20030206/UP>  
MOST RECENT DERWENT UPDATE: 200309 <200309/DW>  
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> DUE TO TECHNICAL ISSUES THE SDIS FOR UPDATES 200302-200304  
BASED ON ENTRY DATE (ED) MAY CONTAIN DOCUMENTS PREVIOUSLY  
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>>> SLART (Simultaneous Left and Right Truncation) is now  
available in the /ABEX field. An additional search field  
/BIX is also provided which comprises both /BI and /ABEX <<<

>>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES,  
SEE <http://www.derwent.com/dwpi/updates/dwpcov/index.html> <<<

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,  
PLEASE VISIT:  
[http://www.stn-international.de/training\\_center/patents/stn\\_guide.pdf](http://www.stn-international.de/training_center/patents/stn_guide.pdf) <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER  
GUIDES, PLEASE VISIT:  
[http://www.derwent.com/userguides/dwpi\\_guide.html](http://www.derwent.com/userguides/dwpi_guide.html) <<<

=> D QUE L17

L6 9073 SEA FILE=WPIX ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR

ALUMINIUM) AND (CUP# OR BELL# OR ATOMI?)  
L7 1121 SEA FILE=WPIX ABB=ON L6 AND COATING#  
L8 118 SEA FILE=WPIX ABB=ON L7 AND WEAR?(3A) (RESIST? OR INHIBIT?)  
L9 510 SEA FILE=WPIX ABB=ON COAT?(3A) (BELL# OR CUP#)  
L10 3 SEA FILE=WPIX ABB=ON L8 AND L9  
L11 36 SEA FILE=WPIX ABB=ON L7 AND L9  
L12 1 SEA FILE=WPIX ABB=ON L11 AND B05B?/IC  
L13 4 SEA FILE=WPIX ABB=ON L11 AND B05D?/IC  
L14 1 SEA FILE=WPIX ABB=ON L11 AND ELECTROSTA?  
L15 2 SEA FILE=WPIX ABB=ON L9 AND (SILICON OR SI) (2A) (C OR CARBON)  
L16 2 SEA FILE=WPIX ABB=ON L11 AND PAINT?  
L17 6 SEA FILE=WPIX ABB=ON L10 OR (L12 OR L13 OR L14 OR L15 OR L16)

=> FILE JICST

FILE 'JICST-EPLUS' ENTERED AT 16:04:37 ON 10 FEB 2003

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FILE COVERS 1985 TO 3 FEB 2003 (20030203/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED TERM (/CT) THESAURUS RELOAD.

=> D QUE L44

L6 9073 SEA FILE=WPIX ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR  
ALUMINIUM) AND (CUP# OR BELL# OR ATOMI?)  
L18 4789 SEA FILE=HCAPLUS ABB=ON L6 AND COATING#  
L19 380 SEA FILE=HCAPLUS ABB=ON COAT?(3A) (BELL# OR CUP#)  
L20 42 SEA FILE=HCAPLUS ABB=ON L18 AND L19  
L21 4 SEA FILE=HCAPLUS ABB=ON L20 AND PAINT?  
L22 6 SEA FILE=HCAPLUS ABB=ON L20 AND ELECTROSTA?  
L23 0 SEA FILE=HCAPLUS ABB=ON L20 AND (SILICON OR SI) (2A) (C OR  
CARBON)  
L24 2 SEA FILE=HCAPLUS ABB=ON L20 AND WEAR?(3A) (RESIST? OR INHIBIT?)  
L25 34194 SEA FILE=HCAPLUS ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR  
ALUMINIUM) (5A) (CUP# OR BELL# OR ATOMI?)  
L26 25 SEA FILE=HCAPLUS ABB=ON L19 AND L25  
L28 14 SEA FILE=HCAPLUS ABB=ON L26 AND COATING?/SC, SX, AB, BI  
L29 0 SEA FILE=HCAPLUS ABB=ON L28 AND WEAR?  
L30 0 SEA FILE=HCAPLUS ABB=ON L28 AND ?WEAR?  
L31 2 SEA FILE=HCAPLUS ABB=ON L26 AND ELECTROSTA?  
L32 2 SEA FILE=HCAPLUS ABB=ON L26 AND PAINT?  
L44 1 SEA FILE=JICST-EPLUS ABB=ON (L21 OR L22 OR L23 OR L24) OR  
(L29 OR L30 OR L31 OR L32)

=> FILE JAPIO

FILE 'JAPIO' ENTERED AT 16:04:50 ON 10 FEB 2003

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FILE LAST UPDATED: 10 FEB 2003 <20030210/UP>

FILE COVERS APR 1973 TO AUGUST 30, 2002

<<< GRAPHIC IMAGES AVAILABLE >>>

=> D QUE L43

L6 9073 SEA FILE=WPIX ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR  
ALUMINIUM) AND (CUP# OR BELL# OR ATOMI?)

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L18 4789 SEA FILE=HCAPLUS ABB=ON L6 AND COATING#  
L19 380 SEA FILE=HCAPLUS ABB=ON COAT?(3A) (BELL# OR CUP#)  
L20 42 SEA FILE=HCAPLUS ABB=ON L18 AND L19  
L21 4 SEA FILE=HCAPLUS ABB=ON L20 AND PAINT?  
L22 6 SEA FILE=HCAPLUS ABB=ON L20 AND ELECTROSTA?  
L23 0 SEA FILE=HCAPLUS ABB=ON L20 AND (SILICON OR SI) (2A) (C OR CARBON)  
L24 2 SEA FILE=HCAPLUS ABB=ON L20 AND WEAR?(3A) (RESIST? OR INHIBIT?)  
  
L25 34194 SEA FILE=HCAPLUS ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR ALUMINIUM) (5A) (CUP# OR BELL# OR ATOMI?)  
L26 25 SEA FILE=HCAPLUS ABB=ON L19 AND L25  
L28 14 SEA FILE=HCAPLUS ABB=ON L26 AND COATING?/SC, SX, AB, BI  
L29 0 SEA FILE=HCAPLUS ABB=ON L28 AND WEAR?  
L30 0 SEA FILE=HCAPLUS ABB=ON L28 AND ?WEAR?  
L31 2 SEA FILE=HCAPLUS ABB=ON L26 AND ELECTROSTA?  
L32 2 SEA FILE=HCAPLUS ABB=ON L26 AND PAINT?  
L43 0 SEA FILE=JAPIO ABB=ON (L21 OR L22 OR L23 OR L24) OR (L29 OR L30 OR L31 OR L32)

=> FILE RAPRA

FILE '~~RAPRA~~' ENTERED AT 16:05:16 ON 10 FEB 2003  
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FILE LAST UPDATED: 28 JAN 2003 <20030128/UP>  
FILE COVERS 1972 TO DATE

>>> The RAPRA Classification Code is available as a PDF file  
>>> and may be downloaded free-of-charge from:  
>>> [http://www.stn-international.de/stndatabases/details/rapra\\_classcodes.pdf](http://www.stn-international.de/stndatabases/details/rapra_classcodes.pdf)

=> D QUE L42

L6 9073 SEA FILE=WPIX ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR ALUMINIUM) AND (CUP# OR BELL# OR ATOMI?)  
L18 4789 SEA FILE=HCAPLUS ABB=ON L6 AND COATING#  
L19 380 SEA FILE=HCAPLUS ABB=ON COAT?(3A) (BELL# OR CUP#)  
L20 42 SEA FILE=HCAPLUS ABB=ON L18 AND L19  
L21 4 SEA FILE=HCAPLUS ABB=ON L20 AND PAINT?  
L22 6 SEA FILE=HCAPLUS ABB=ON L20 AND ELECTROSTA?  
L23 0 SEA FILE=HCAPLUS ABB=ON L20 AND (SILICON OR SI) (2A) (C OR CARBON)  
L24 2 SEA FILE=HCAPLUS ABB=ON L20 AND WEAR?(3A) (RESIST? OR INHIBIT?)  
  
L25 34194 SEA FILE=HCAPLUS ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR ALUMINIUM) (5A) (CUP# OR BELL# OR ATOMI?)  
L26 25 SEA FILE=HCAPLUS ABB=ON L19 AND L25  
L28 14 SEA FILE=HCAPLUS ABB=ON L26 AND COATING?/SC, SX, AB, BI  
L29 0 SEA FILE=HCAPLUS ABB=ON L28 AND WEAR?  
L30 0 SEA FILE=HCAPLUS ABB=ON L28 AND ?WEAR?  
L31 2 SEA FILE=HCAPLUS ABB=ON L26 AND ELECTROSTA?  
L32 2 SEA FILE=HCAPLUS ABB=ON L26 AND PAINT?  
L42 0 SEA FILE=RAPRA ABB=ON (L21 OR L22 OR L23 OR L24) OR (L29 OR L30 OR L31 OR L32)

=> FILE COMPENDEX

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FILE COVERS 1970 TO DATE.

<<< SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN  
THE BASIC INDEX >>>

<<< NEW DISPLAY FORMAT 'SCAN' AVAILABLE NOW >>>

=> D QUE

L6 9073 SEA FILE=WPIX ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR  
ALUMINIUM) AND (CUP# OR BELL# OR ATOMI?)  
L18 4789 SEA FILE=HCAPLUS ABB=ON L6 AND COATING#  
L19 380 SEA FILE=HCAPLUS ABB=ON COAT?(3A) (BELL# OR CUP#)  
L20 42 SEA FILE=HCAPLUS ABB=ON L18 AND L19  
L21 4 SEA FILE=HCAPLUS ABB=ON L20 AND PAINT?  
L22 6 SEA FILE=HCAPLUS ABB=ON L20 AND ELECTROSTA?  
L23 0 SEA FILE=HCAPLUS ABB=ON L20 AND (SILICON OR SI) (2A) (C OR  
CARBON)  
L24 2 SEA FILE=HCAPLUS ABB=ON L20 AND WEAR?(3A) (RESIST? OR INHIBIT?)  
L25 34194 SEA FILE=HCAPLUS ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR  
ALUMINIUM) (5A) (CUP# OR BELL# OR ATOMI?)  
L26 25 SEA FILE=HCAPLUS ABB=ON L19 AND L25  
L28 14 SEA FILE=HCAPLUS ABB=ON L26 AND COATING?/SC, SX, AB, BI  
L29 0 SEA FILE=HCAPLUS ABB=ON L28 AND WEAR?  
L30 0 SEA FILE=HCAPLUS ABB=ON L28 AND ?WEAR?  
L31 2 SEA FILE=HCAPLUS ABB=ON L26 AND ELECTROSTA?  
L32 2 SEA FILE=HCAPLUS ABB=ON L26 AND PAINT?  
L45 0 SEA FILE=NTIS ABB=ON (L21 OR L22 OR L23 OR L24) OR (L29 OR  
L30 OR L31 OR L32)

=> D QUE L34

L6 9073 SEA FILE=WPIX ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR  
ALUMINIUM) AND (CUP# OR BELL# OR ATOMI?)  
L18 4789 SEA FILE=HCAPLUS ABB=ON L6 AND COATING#  
L19 380 SEA FILE=HCAPLUS ABB=ON COAT?(3A) (BELL# OR CUP#)  
L20 42 SEA FILE=HCAPLUS ABB=ON L18 AND L19  
L21 4 SEA FILE=HCAPLUS ABB=ON L20 AND PAINT?  
L22 6 SEA FILE=HCAPLUS ABB=ON L20 AND ELECTROSTA?  
L23 0 SEA FILE=HCAPLUS ABB=ON L20 AND (SILICON OR SI) (2A) (C OR  
CARBON)  
L24 2 SEA FILE=HCAPLUS ABB=ON L20 AND WEAR?(3A) (RESIST? OR INHIBIT?)  
L25 34194 SEA FILE=HCAPLUS ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR  
ALUMINIUM) (5A) (CUP# OR BELL# OR ATOMI?)  
L26 25 SEA FILE=HCAPLUS ABB=ON L19 AND L25  
L28 14 SEA FILE=HCAPLUS ABB=ON L26 AND COATING?/SC, SX, AB, BI  
L29 0 SEA FILE=HCAPLUS ABB=ON L28 AND WEAR?  
L30 0 SEA FILE=HCAPLUS ABB=ON L28 AND ?WEAR?  
L31 2 SEA FILE=HCAPLUS ABB=ON L26 AND ELECTROSTA?  
L32 2 SEA FILE=HCAPLUS ABB=ON L26 AND PAINT?  
L34 0 SEA FILE=COMPENDEX ABB=ON (L21 OR L22 OR L23 OR L24) OR (L29  
OR L30 OR L31 OR L32)

=> FILE NTIS

FILE 'NTIS' ENTERED AT 16:06:11 ON 10 FEB 2003

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FILE LAST UPDATED: 1 FEB 2003 <20030201/UP>  
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=> D QUE L45

L6 9073 SEA FILE=WPIX ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR  
ALUMINIUM) AND (CUP# OR BELL# OR ATOMI?)  
L18 4789 SEA FILE=HCAPLUS ABB=ON L6 AND COATING#  
L19 380 SEA FILE=HCAPLUS ABB=ON COAT?(3A) (BELL# OR CUP#)  
L20 42 SEA FILE=HCAPLUS ABB=ON L18 AND L19  
L21 4 SEA FILE=HCAPLUS ABB=ON L20 AND PAINT?  
L22 6 SEA FILE=HCAPLUS ABB=ON L20 AND ELECTROSTA?  
L23 0 SEA FILE=HCAPLUS ABB=ON L20 AND (SILICON OR SI) (2A) (C OR  
CARBON)  
L24 2 SEA FILE=HCAPLUS ABB=ON L20 AND WEAR?(3A) (RESIST? OR INHIBIT?)  
L25 34194 SEA FILE=HCAPLUS ABB=ON (AL OR TI OR TITANIUM OR ALUMINUM OR  
ALUMINIUM) (5A) (CUP# OR BELL# OR ATOMI?)  
L26 25 SEA FILE=HCAPLUS ABB=ON L19 AND L25  
L28 14 SEA FILE=HCAPLUS ABB=ON L26 AND COATING?/SC, SX, AB, BI  
L29 0 SEA FILE=HCAPLUS ABB=ON L28 AND WEAR?  
L30 0 SEA FILE=HCAPLUS ABB=ON L28 AND ?WEAR?  
L31 2 SEA FILE=HCAPLUS ABB=ON L26 AND ELECTROSTA?  
L32 2 SEA FILE=HCAPLUS ABB=ON L26 AND PAINT?  
L45 0 SEA FILE=NTIS ABB=ON (L21 OR L22 OR L23 OR L24) OR (L29 OR  
L30 OR L31 OR L32)

=> DUP REM L33 L41 L17 L44

FILE 'HCAPLUS' ENTERED AT 16:06:29 ON 10 FEB 2003  
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FILE 'WPIX' ENTERED AT 16:06:29 ON 10 FEB 2003  
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FILE 'JICST-EPLUS' ENTERED AT 16:06:29 ON 10 FEB 2003  
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PROCESSING COMPLETED FOR L33  
PROCESSING COMPLETED FOR L41  
PROCESSING COMPLETED FOR L17  
PROCESSING COMPLETED FOR L44  
L46 30 DUP REM L33 L41 L17 L44 (0 DUPLICATES REMOVED)

=> D ALL L46 1-30

L46 ANSWER 1 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH  
AN 543306 WSCA DN 02-03306  
TI New application techniques of water-borne paints for the motor vehicle

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industry.  
AU YAMABE H ; BOERNER G  
SO Surface Coatings Internat. Coatings J. 2002, Vol 85 No A2, 68-72.  
DT Journal  
LA English  
AB Investigation of a newly-developed, external charging bell-type atomiser is described, involving optimising the number of electrodes, measurement of transfer efficiency, fan patterns, flop index, comparison between direct and external charging for transfer efficiency with lapping effect. It is noted that by optimising the number and position of external electrodes and the shaping of the air nozzle arrangements, it has been confirmed that the newly-developed external charging bell-type atomiser demonstrates sufficient performance for motor vehicle exterior painting.  
CC 49 Pretreatment and Application  
IT Spray Guns: rotary, bells/electrodes (external); Electrostatic Spraying: rotary, bells/electrodes (external); Water-borne **Coatings**: electrostatic spraying, **bells**/electrodes (external); Vehicles, Motor: water-bornes, electrostatic spraying  
ST APP; metallic flake orientation; metallic pigment; rotary electrostatic spraying; atomisation; spray gun; water-borne coating

L46 ANSWER 2 OF 30 WPIX (C) 2003 THOMSON DERWENT  
AN 2001-425188 [45] WPIX  
DNN N2001-315451 DNC C2001-128616  
TI Method of **coating** substrate with pigment containing polychromatic **coating**, used for **coating** e.g. automotive body, comprises applying first waterborne pigment free **coating** and then second waterbourne **coating** containing effect pigment.  
DC A32 A82 G02 P42  
IN DATILO, V P  
PA (PITT) PPG IND OHIO INC; (DATT-I) DATILO V P  
CYC 95  
PI WO 2001036112 A2 20010525 (200145)\* EN 71p B05D000-00 <--  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TR TZ UG ZW  
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM  
DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE  
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
AU 2001014718 A 20010530 (200152) B05D000-00 <--  
US 2002122892 A1 20020905 (200260) B05D001-02 <--  
EP 1232019 A2 20020821 (200262) EN B05D001-06 <--  
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI TR  
ADT WO 2001036112 A2 WO 2000-US30607 20001107; AU 2001014718 A AU 2001-14718  
20001107; US 2002122892 A1 Div ex US 1999-439397 19991115, US 2002-85366  
20020228; EP 1232019 A2 EP 2000-977025 20001107, WO 2000-US30607 20001107  
FDT AU 2001014718 A Based on WO 200136112; EP 1232019 A2 Based on WO 200136112  
PRAI US 1999-439397 19991115; US 2002-85366 20020228  
IC ICM B05D000-00; B05D001-02; B05D001-06  
ICS B05D001-34  
AB WO 200136112 A UPAB: 20010813  
NOVELTY - Method of **coating** a substrate comprises (a) applying a first waterborne **coating** material, that is free of effect pigment, over the substrate by **bell** application(s); and (b) applying a second waterborne **coating** material, that comprises effect pigment, over first **coating** by **bell** application(s).  
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for (A) a

dynamic **coating** application system (110) with first and second **coating** supplies, mixer(s) for each supply and a **bell** applicator for receiving the mixed **coating** material from the mixer and applying it over the substrate surface; and (B) a method of controlling a multi-**bell** applicator **coating** system comprising (i) determining **bell** rotational speed, shaping air supply and **coating** flow rate values for a **bell** applicator to produce a desired droplet uniformity; (ii) using these values to determine a control ratio of (rotational speed multiplied by shaping air supply) over the **coating** flow rate; and (iii) controlling the rotational speed, shaping air supply and **coating** delivery rate of each **bell** applicator of the system to substantially maintain the control ratio.

USE - For applying **coatings**, e.g. base coats and/or clear coats, onto automotive substrates.

ADVANTAGE - The total amount of effect pigment used to obtain a desired polychromatic effect is reduced reducing the **coating** cost. The multi-applicator system allows the applicators to have independent control features, but coordinates these controls based on a common **coating** system control parameter to promote formation of uniform droplets.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic diagram of a dynamic **coating** device.

Bell applicator 108

Coating system 110

First mixing system 120

First **coating** supplies 122a-e

Pumps to supply first **coating** to first mixer 128a-e

First mixer 140

Second mixing system 144

Second **coating** supplies 146a-f

Pumps to supply second **coating** to second mixer 150a-f

Second mixer 156

Dwg. 5/6

FS CPI GMPI

FA AB; GI

MC CPI: A08-E02; A08-S02; A11-B05; A12-B01; G02-A05E

L46 ANSWER 3 OF 30 WPIX (C) 2003 THOMSON DERWENT

AN 2002-057363 [08] WPIX

DNN N2002-042335 DNC C2002-016557

TI **Wear resistant coating for paint**

**bell atomizer for electrostatic application of fluids preferably comprises silicon-doped amorphous carbon.**

DC M13 P42 X25

IN FIALA, A; PETTY, J; POTTER, T; POTTER, T J

PA (FORD) FORD GLOBAL TECHNOLOGIES INC; (FIAL-I) FIALA A; (PETT-I) PETTY J; (POTT-I) POTTER T J

CYC 6

PI GB 2361440 A 20011024 (200208)\* 16p B05B005-00 <--

CA 2344010 A1 20011019 (200208) EN C09D005-46

DE 10112854 A1 20011031 (200208) B05B005-04 <--

JP 2001353455 A 20011225 (200216) 7p B05B005-04 <--

KR 2001098691 A 20011108 (200227) B05B015-12 <--

US 2002066808 A1 20020606 (200241) B05B005-00 <--

US 6409104 B1 20020625 (200246) B05B005-04 <--

ADT GB 2361440 A GB 2001-8000 20010330; CA 2344010 A1 CA 2001-2344010  
20010417; DE 10112854 A1 DE 2001-10112854 20010316; JP 2001353455 A JP  
2001-115211 20010413; KR 2001098691 A KR 2001-20683 20010418; US

*applicants*



2002066808 A1 Div ex US 2000-552132 20000419, US 2002-57081 20020125; US  
 6409104 B1 US 2000-552132 20000419  
 PRAI US 2000-552132 20000419; US 2002-57081 20020125  
 IC ICM B05B005-00; B05B005-04; B05B015-12;  
 C09D005-46

ICS B05B003-10; B05D001-04; B05D003-10;  
 B05D005-00; B05D007-14; B05D007-24

AB GB 2361440 A UPAB: 20020204

NOVELTY - **Bell atomizer** for use in  
**electrostatic** applications has a **bell** housing and an  
**aluminum** or **titanium bell cup**. A  
**wear resistant coating**, preferably a  
**silicon-doped amorphous carbon**, is coated directly on a  
 surface of an **aluminum bell cup**. For a  
**titanium bell cup**, the **wear**  
**resistant coating** is formed on an adhesion promoter,  
 preferably sputtered chrome, applied to a surface of the **cup**.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is given for a method of  
 improving the **wear resistance** of the outer surface of  
 an **aluminum bell cup** by applying a  
**wear resistant coating** after cleaning with a  
 soap solution, then water and finally solvent, etching, rinsing, drying  
 and **atomically** cleaning the outer surface.

USE - Polymer **coating** application equipment.

ADVANTAGE - The durability of the **paint bell** is  
 improved without affecting the cost or performance of the equipment.

DESCRIPTION OF DRAWING(S) - The drawing shows a cross-sectional view  
 of a **paint atomizer** head formed according to the  
 invention.

Atomizer head 22

Bell atomizer 32

Bell cup 36

Paint channel 38

Paint particles 40

Dwg. 2/5

FS CPI EPI GMPI

FA AB; GI

MC CPI: M13-E02; M13-E06; M13-H; M13-H06  
 EPI: X25-K01; X25-K09

L46 ANSWER 4 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:331036 HCAPLUS

DN 131:6597

TI Metallic **coating** process for forming smooth and glossy films  
 with good flip-flop properties

IN Nakamura, Shigeru; Ishide, Hideki

PA Kansai Paint Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B05D001-04

ICS B05D005-06; C09D005-38

CC 42-2 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 55, 56

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11138087	A2	19990525	JP 1997-309105	19971112
PRAI	JP 1997-309105		19971112		

- AB In the title process, liq. metallic **coatings** are finely ground with a rotational spray-type **electrostatic coating** app. and then sprayed onto articles at a scattering rate of .gtoreq.10 m/s. Thus, a metal sheet was sprayed with an EtOAc dispersion contg. an acrylic resin 75, Bu etherified melamine resin 25, and **Al** flakes 15 parts using a **bell-type electrostatic coating** app. to give a film with good flip-flop properties, smoothness, and gloss.
- ST metallic **electrostatic coating aluminum** acrylic resin; melamine acrylic resin **aluminum** metallic **coating**; spray **coating electrostatic aluminum** acrylic resin
- IT **Coating materials**  
(glossy; metallic **coating** process for forming smooth and glossy films with good flip-flop properties)
- IT **Coating materials**  
(metal; metallic **coating** process for forming smooth and glossy films with good flip-flop properties)
- IT **Electrostatic** deposition  
(metallic **coating** process for forming smooth and glossy films with good flip-flop properties)
- IT Acrylic polymers, uses  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(metallic **coating** process for forming smooth and glossy films with good flip-flop properties)
- IT Aminoplasts  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(metallic **coating** process for forming smooth glossy films with good flip-flop properties)
- IT Metals, miscellaneous  
RL: MSC (Miscellaneous)  
(substrates; metallic **coating** process for forming smooth and glossy films with good flip-flop properties)
- IT 7429-90-5, **Aluminum**, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(metallic **coating** process for forming smooth and glossy films with good flip-flop properties)
- IT 9003-08-1  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(metallic **coating** process for forming smooth glossy films with good flip-flop properties)
- L46 ANSWER 5 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH  
AN 487772 WSCA DN 99-07772  
TI Exquisite **painting** technique for (automobile manufacturer).  
AU BENNETT C  
SO Metalloberflaeche 1999, Vol 53 No 4, 42 (4 pp).  
DT Journal  
LA German  
AB The processes employed by a UK manufacturer are described. Water-borne **paints** are applied by rotational spraying using **titanium bells**. (In German)
- CC 49 Pretreatment and Application  
IT Automobiles: **painting**, plants (UK), processes; **Painting** : automobiles, plants (UK), processes; Water-borne **Coatings**: automobiles, application; Spraying: rotary, **bells**,

water-bornes; Water-borne **Coatings**: spraying (rotary),  
**bells**  
ST APP; rotary spraying; **water-borne coating**; pretreatment  
CO Jaguar  
GT UK; Castle Bromwich

L46 ANSWER 6 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH  
AN 484013 WSCA DN 99-04013  
TI Influence of temperature and time of exposure to heat on **painted**  
surfaces.  
AU PEREZ CAMPOS R M ; NAVARRO MIQUEL V P  
SO Pitture Vernici 1999, Vol 75 No 2, 7-13.  
DT Journal  
LA Italian  
AB Furniture **coatings** were tested for resistance to dry heat  
(100-180 deg. C), and wet heat (55-95 deg. C) by placing a heat source  
consisting of an **aluminium cup** containing hot oil on  
the surface for a specified time, and observing the effects. For the wet  
heat test, a wet polyamide cloth was placed between the heat source and  
the surface. The **coatings** investigated were nitrocellulose,  
polyurethane, and peroxide- and UV-cured polyester. (In Italian and  
English)  
CC 71 Other Properties and Testing Methods  
IT Heat Resistance: determination, **coatings**, oils (hot) in  
**cups** on; Furniture: **coatings**, heat resistance  
determination; Nitrocellulose: **coatings**, heat resistance  
determination; Polyurethane **Coatings**: heat resistance,  
determination; Polyesters: **coatings**, heat resistance  
determination; Polyesters: ultraviolet-curables, heat resistance  
determination  
ST **UV-curable coating**; **ultraviolet-curable coating**  
CN nitrocellulose; polyurethane; peroxide; polyester

L46 ANSWER 7 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH  
AN 467769 WSCA DN 98-07769  
TI Coating of clock faces.  
AU SCHRODER H  
SO Metalloberflaeche 1998, Vol 52 No 5, 375-7.  
DT Journal  
LA German  
AB An installation using spray washing, condensation drying, and rotary  
**bell spray coating** is described. (In German)  
CC 49 Pretreatment and Application  
IT Clocks: faces, painting, spraying (rotary); Painting: clocks faces;  
Spraying: rotary, bells, clocks faces  
ST APP; spraying  
CO Franz Hermle & Sohn

L46 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2003 ACS  
AN 1997:385649 HCAPLUS  
DN 127:6171  
TI Baking oven interior **coating** and stabilizers for the  
**coatings**  
IN Jarema, Chester P.; Stuart, Michael A.  
PA Henkel Corporation, USA; Jarema, Chester P.; Stuart, Michael A.  
SO PCT Int. Appl., 26 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM C08K005-01

ICS C08K005-13; C08K005-36; B32B015-08; B32B027-00; A21B001-04  
 CC 42-5 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 39

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9714745	A1	19970424	WO 1996-US16128	19961015
	W: BR, CA, MX, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2235478	AA	19970424	CA 1996-2235478	19961015
	BR 9611079	A	19990713	BR 1996-11079	19961015
	US 6191201	B1	20010220	US 1998-51855	19980420
PRAI	US 1995-5714P	P	19951020		
	WO 1996-US16128	W	19961015		
AB	A mixt. of 2 stabilizers, 1 including benzene rings bearing hydroxyl substituents and the other contg. divalent S atoms, is effective in stabilizing tacky polymers that remain solid .ltoreq.160.degree., particularly polymers of isobutylene, so that the polymers give long service in ambient atm. as protective layers coated on <b>Al</b> substrates and used to line the interiors of <b>paint</b> baking ovens. The <b>coatings</b> having accumulated contaminants can be decompd. to largely volatile products by heating to a temp. substantially higher than the service temp. but below the metal substrate melt temp. A <b>coating</b> contg. Vistanex LM-MH, Irganox 1010, Cyanox 1212, and mineral spirits was used to <b>coat</b> an <b>Al</b> foil <b>cup</b> ; showing good resistance to aging at 176.degree..				
ST	lining <b>paint</b> baking oven; protective <b>coating</b> baking oven; isobutylene rubber antioxidant protective <b>coating</b> ; Irganox antioxidant protective <b>coating</b> ; hindered phenol antioxidant protective <b>coating</b> ; <b>aluminum</b> protective <b>coating</b> rubber antioxidant; heat decomposable rubber antioxidant <b>coating</b>				
IT	Butyl rubber, uses Isobutylene rubber RL: TEM (Technical or engineered material use); USES (Uses) (binder; in interior <b>coating</b> for baking oven)				
IT	Cleaning (by thermal degrdn. of compn. of isobutylene polymer and antioxidants; of interior <b>coating</b> for baking oven)				
IT	Ovens (compn. of isobutylene polymer and antioxidants; interior <b>coating</b> or lining for <b>paint</b> baking)				
IT	<b>Coating</b> materials (compn. of isobutylene polymer and antioxidants; interior <b>coating</b> or lining for <b>paint</b> baking oven)				
IT	Antioxidants (in interior <b>coating</b> for baking oven)				
IT	9010-85-9 RL: TEM (Technical or engineered material use); USES (Uses) (butyl rubber, binder; in interior <b>coating</b> for baking oven)				
IT	111-17-1D, Thiodipropionic acid, mixed lauryl stearyl esters 123-28-4, Cyanox LTDP 128-37-0, uses 6683-19-8, Irganox 1010 103735-37-1, Cyanox 1212 RL: MOA (Modifier or additive use); USES (Uses) (in interior <b>coating</b> for baking oven)				
IT	7429-90-5, <b>Aluminum</b> , miscellaneous RL: MSC (Miscellaneous) (in interior <b>coating</b> for baking oven)				
IT	9003-27-4 RL: TEM (Technical or engineered material use); USES (Uses)				

(isobutylene rubber, binder; in interior **coating** for baking oven)

L46 ANSWER 9 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH  
AN 427882 WSCA DN 96-07882  
TI Electrostatic application using minibells of powder coatings on automobile bodies.  
AU LACCHIA A ; LAMBINET G  
SO Surfaces 1996, Vol 35 No 260, 65 (6 pp).  
DT Journal  
LA French  
AB The process is described. Control of the powder flow is particularly considered. (In French)  
CC 49 Pretreatment and Application  
IT Powder Coatings: electrostatic spraying, automobiles, equipment/bells; Electrostatic Spraying: powder **coatings**, equipment/automobiles, **bells**; Automobiles: powder **coatings**, electrostatic spraying, equipment/bells  
ST APP; electrostatic spraying

L46 ANSWER 10 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH  
AN 441012 WSCA DN 97-01012  
TI Application of powder coatings.  
AU ANON  
SO Ind.-Lack.-Betrieb 1996, Vol 64 No 9, 508 (4 pp).  
DT Journal  
LA German  
AB The use of electrostatic spray **bells** for powder **coating** is described. (In German)  
CC 49 Pretreatment and Application  
IT Powder **Coatings**: electrostatic spraying, **bells** (rotary); Electrostatic Spraying: powder **coatings**, **bells** (rotary)  
ST APP; electrostatic spraying

L46 ANSWER 11 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH  
AN 407496 WSCA DN 95-07496  
TI Developments in electrostatic techniques in the industrial sector.  
AU HEBERLEIN K  
SO Ind.-Lack.-Betrieb 1995, Vol 63 No 2, 39-48.  
DT Journal  
LA German  
AB Electrostatic methods are surveyed, considering pneumatic, airless and assisted airless spraying, electrostatic spraying (including spraying of conductive and textured coatings), automatic electrostatic spraying (including airless), electrostatic powder coating, fluidised bed coating, modified triboelectric processes, and powder **coating** with rotational **bells** and discs. (In German)  
CC 49 Pretreatment and Application  
IT Electrostatic Coating: methods, review; Powder Coatings: electrostatic application; Electrostatic Coating: powder coatings  
ST APP; review; conductive coating

L46 ANSWER 12 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH  
AN 407485 WSCA DN 95-07485  
TI Keep up with changes or success will pass you by.  
AU ANON  
SO Coatings Mag. 1995, Vol 16 No 4, 63-4.  
DT Journal  
LA English

AB Custom **coating** by a Winnipeg, Manitoba, company is discussed, including equipment used, measures to overcome the Faraday cage effect, colour matching, solvents distillation, and **paint** sludges (incineration but with centrifugation being considered). A five-stage iron phosphate pretreatment system includes a chromate conversion stage as an adhesion promoter for **aluminium** products. There are four water wash spray booths, two automatic with **atomising bells** and two manual touch-up booths. High-solids **coatings** are applied. Rotary **bells** may be placed right up against the substrates. A fire in 1991 was caused by a grounding wire breaking an **atomising bell** whilst solvents were being flushed out.

CC 49 Pretreatment and Application

IT High-solids **Coatings**: application, **painting** (contract), Canada; **Painting**: contract, high-solids **coatings**, Canada; **Electrostatic** Spraying: high-solids **coating**, contract, Canada

ST APP; **contract painting**; **electrostatic spraying**; **atomisation**; spray gun; phosphating; **aluminium substrate**

GT CANADA; MANITOBA; WINNIPEG

CN IRON PHOSPHATE

TN DURACRON (PPG INDUSTRIES); DURANAR (PPG INDUSTRIES); INTERMIX (PPG INDUSTRIES); **PAINT PIG (ALFA-LAVAL)**

L46 ANSWER 13 OF 30 WPIX (C) 2003 THOMSON DERWENT

AN 1995-000948 [01] WPIX

DNC C1995-000404

TI Coated **aluminium** alloy bucket tappet - has **wear resistant** plasma sprayed **coating** contg. molybdenum and molybdenum tri oxide.

DC M13

IN HEINZEL, W; WEBER, T; GOEING, P

PA (PTGP-N) PTG PLASMA-OBERFLAECHENTECHNIK GMBH

CYC 4

PI EP 626466 A2 19941130 (199501)\* DE 9p C23C004-06  
R: DE FR GB IT

DE 4317350 A1 19941201 (199502) 8p C23C004-06

DE 4317350 C2 19950420 (199520) 8p C23C004-06

EP 626466 A3 19951220 (199619) C23C004-06

ADT EP 626466 A2 EP 1994-107658 19940518; DE 4317350 A1 DE 1993-4317350 19930525; DE 4317350 C2 DE 1993-4317350 19930525; EP 626466 A3 EP 1994-107658 19940518

PRAI DE 1993-4317350 19930525

REP DE 2852534; DE 3814362; EP 326658; FR 2234382

IC ICM C23C004-06

ICS C23C004-04; C23C014-06; C23C014-14; C23C014-16; F01L001-14; F01L003-04

AB EP 626466 A UPAB: 19950110

**Coating** of an **Al** alloy bucket tappet is carried out by plasma spraying of a Mo- and MoO<sub>3</sub>-contg. powder mixt. with an oxygen content of 2-8%. The powder mixt. may be plasma sprayed with oxygen supply (pref. as the powder carrier gas), in which case the MoO<sub>3</sub> is formed by partial oxidn. of the Mo powder during spraying, or without oxygen, in which case the powder mixt. contains Mo powder and MoO<sub>3</sub> powder.

Also claimed are (i) a bucket tappet of **Al** alloy with a surface **coating** (25) contg. a mixt. of Mo and MoO<sub>3</sub>, the mixt. having an oxygen content of 2-8%; and (ii) use of plasma spraying of mixts. of Mo and MoO<sub>3</sub> for **coating aluminium** bucket tappets.

**Wear resistance** of the bucket tappet, esp. in the

cylindrical shaft region, is improved by the lubricating action of the MoO<sub>3</sub> and the high adhesion of the **coating**. The coated lightweight tappet has a service life corresponding to that of conventional steel bucket tappets and does not require expensive inserts of hard material.

Dwg.3/6

FS CPI  
FA AB; GI  
MC CPI: M13-C

- L46 ANSWER 14 OF 30 JICST-EPlus COPYRIGHT 2003 JST  
AN 940407831 JICST-EPlus  
TI Guide of **coating** materials and **painting** technology in  
'94 - challenges to comfort, environment and advanced technology.  
**Titanium** oxide.  
AU ISHIMURA YASUO  
CS Ishiharasangyo Giken  
SO Kogyo Zairyo (Engineering Materials), (1994) vol. 42, no. 7, pp. 51-60.  
Journal Code: F0172A (Fig. 16, Tbl. 6, Ref. 17)  
CODEN: KZAI A5; ISSN: 0452-2834  
CY Japan  
DT Journal; Commentary  
LA Japanese  
STA New  
AB There is good correspondence between the consumption of **titanium** oxide and GDP. In the production methods, sulfuric acid process and chlorine process have the history of 80 years and 40 years respectively, and the recent production ratio of each method is 50/50. **Titanium** oxide has 2 crystalline forms, anatase type and rutile type. The following are described: Fundamental properties, dispersiveness of pigments, weatherability of coated films, lowering of film clearness by **bell**-type **coating** machines and countermeasures of **titanium** oxide, technical development in new **coating** materials such as water borne acrylics, water borne monocoat for automobiles and powder **coating** materials.  
CC YJ03030B (667.622)  
CT **titanium** oxide; GNP; anatase; rutile type crystal; degree of dispersion; inorganic pigment; weather resistance; sharpness; water borne **coatings**; powder **coatings**  
BT metal oxide; oxide; chalcogenide; oxygen group element compound; oxygen compound; **titanium** compound; 4A group element compound; transition metal compound; production; oxide mineral; mineral (geology); crystal; solid (matter); degree; pigment (**paint**); resistance (endure); **coating** material (**paint**)
- L46 ANSWER 15 OF 30 WPIX (C) 2003 THOMSON DERWENT  
AN 1992-078817 [10] WPIX  
DNN N1992-059018 DNC C1992-036513  
TI Microwaveable **cup** prodn. for heating food prod. - by  
**coating cup** liner **coated** with curable pref.  
poly organo siloxane compsn. contg. electromagnetic absorptive material,  
curing and sealing.  
DC A92 P42  
IN GIBBON, R M  
PA (JMKI-N) JMK INT INC  
CYC 1  
PI US 5088179 A 19920218 (199210)\*  
ADT US 5088179 A US 1990-596946 19901012  
PRAI US 1990-596946 19901012  
IC B05D005-00

AB US 5088179 A UPAB: 19931006

Microwaveable **cup** (11), warming its contents when exposed to microwave energy, is made by **coating** the external liner wall (21) of a **cup** liner (19) with a room temp. vulcanisable, microwaveable compsn. (29), allowing the **coating** to cure without applying heat, and sealing the **cup** liner within the open interior of a **cup** body (15) dimensioned such that there is an open space between it and the liner.

Pref. the room temp. vulcanisable compsn. is a hydroxyl end stopped polyorganosiloxane blended with an electromagnetic absorptive material, e.g. ferrites, powdered iron, but esp. **aluminium** powder or zinc oxide.

USE/ADVANTAGE - The **cup** is essentially a microwaveable container for heating food and drink prods. more efficiently in a microwave oven, e.g. the microwaveable compsn. **coated cup** was capable of heating a fluid to 205 deg.F in 3 minutes whereas an uncoated **cup** only heated the fluid to 190 deg.F.

1/2

FS CPI GMPI

FA AB; GI

MC CPI: A06-A00E; A08-D05; A11-C02C; A12-D03; A12-P06B

L46 ANSWER 16 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1992:532923 HCAPLUS

DN 117:132923

TI The influence of **titanium** dioxide pigments on **coatings** applied by high speed **electrostatic bell**

AU Reeves, N.

CS SCAA Convention, Melbourne, Australia

SO Surface Coatings Australia (1992), 29(3), 6-9

CODEN: SCAUE6; ISSN: 0815-709X

DT Journal

LA English

CC 42-2 (Coatings, Inks, and Related Products)

AB The **electrostatic bell** speed, voltage, and **paint** feed rate played an important role in final alkyd-melamine resin **coating** appearance because each had a bearing on **paint atomization**. Finishes applied by high-speed **electrostatic bell** (HSEB) were sensitive to changes in application and formulation parameters such as the type of solvents used. The most likely cause of reduced gloss and increased haze following HSEB application was some form of TiO<sub>2</sub> pigment flocculation or agglomeration occurring during the application process.

ST **electrostatic bell** spray **coating**; titania pigment **coating electrostatic bell**; alkyd melamine resin **coating electrostatic**; solvent **coating electrostatic bell**; spray **coating** pigment effect

IT **Coating** materials

(alkyd-melamine resins, gloss redn. in, obtained by high-speed **electrostatic bell**, factors affecting)

IT Alkyd resins

RL: TEM (Technical or engineered material use); USES (Uses)  
(**coatings**, contg. formaldehyde-melamine copolymer, appearance of, effect of high-speed **electrostatic bell** application and formulation parameters on)

IT Flocculation

(of **titanium** oxide pigments, appearance of **coatings** applied by high-speed **electrostatic bell** in relation to)



IT Electrodeposition and Electroplating  
 (electrostatic spray, with high-speed bell, effect of application and formulation parameters on)

IT 9003-08-1, Formaldehyde-melamine copolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings, contg. alkyd resins, appearance of, effect of high-speed electrostatic bell application and formulation parameters on)

IT 13463-67-7, Titanium oxide, uses  
 RL: USES (Uses)  
 (pigments, appearance of coatings applied by high-speed electrostatic bell spray, flocculation or agglomeration of)

L46 ANSWER 17 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1991:8339 HCAPLUS

DN 114:8339

TI Inorganic coating compositions

IN Kimura, Toshiro; Okuno, Giichi; Moritsu, Yukikazu

PA Okuno Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D001-02

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 02129269	A2	19900517	JP 1988-283300	19881109
PRAI	JP 1988-283300		19881109		

AB The title compns. forming decorative coatings on various nonplastic substrates, with excellent soiling resistance, hydrophilicity, antimildew properties, elec. insulation, etc. contain 100 parts (as solids) inorg. binder formed by dissolving 20-50 parts SiO<sub>2</sub> in 100 parts (solids) K silicate to SiO<sub>2</sub>/K<sub>2</sub>O molar ratio 4.0-5.3, 1-10 parts inorg. fibrous powder, and 10-50 parts colorants. In 195 parts water was heated 100 parts 100:36.8 mixt. of K silicate and SiO<sub>2</sub> at 90-100.degree. for 2 h under stirring to give an inorg. binder. The binder 100 (as solids), TiO<sub>2</sub> 26, TISMO-D 0.8, and talc 6 parts were ball-milled 4 h, spray-coated on stainless steel, set 10 min, heated from 50.degree. to 180.degree. over 15 min, and cured at 180.degree. for 30 min to give a 20 .mu.m coating showing good performances in appearances, boiling water resistance, gas barrier, heat resistance, adhesion, hardness, wear resistance, bending strength, and weather resistance.

ST silicate silica binder inorg coating

IT Pigments

(for potassium silicate coatings)

IT Mica-group minerals, uses and miscellaneous

RL: USES (Uses)

(potassium silicate coatings contg. fibrous inorg. powder and, for nonplastic substrates)

IT Paper

(potassium silicate fire-resistance coatings for)

IT Coating materials

(potassium silicate-based, contg. inorg. fibrous powder, for nonplastic materials)

IT Electric insulators and Dielectrics

(coatings, potassium silicate-based)

IT Dishes  
(cups, potassium silicate **coatings** for glass)

IT **Coating** materials  
(fire-resistant, potassium silicate-based, for paper)

IT **Coating** materials  
(mildew-resistant, potassium silicate-based)

IT Pearly substances  
(pigments, for potassium silicate **coatings**, for nonplastic substrate)

IT Synthetic fibers  
RL: USES (Uses)  
(potassium titanate, potassium silicate **coatings** contg., for nonplastic substrates)

IT 1312-76-1  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**coatings**, contg. fibrous inorg. powder, for nonplastic materials)

IT 98227-08-8, Cloisonne blue 98227-11-3, Cloisonne Nu Antique Rouge Flambe  
98227-12-4, Cloisonne supergreen 130938-63-5, Cloisonne Nu Antique Red  
130938-64-6, Cloisonne Red 130939-44-5, Flamenco Gold 130939-51-4,  
Iriodin 4217-300 Gold Stain 130939-52-5, Iriodin 4580 Rutile-Silver  
RL: USES (Uses)  
(pigments, for potassium silicate **coatings**, for nonplastic substrate)

IT 101027-05-8, Daipyroxide Black 9510 130938-79-3, Daipyroxide Green 9320  
130939-50-3, Iriodin 4231-500 Bronze  
RL: USES (Uses)  
(pigments, for potassium silicate **coatings**, for nonplastic substrates)

IT 7631-86-9, Silica, uses and miscellaneous 13463-67-7, Tipaque R-550,  
uses and miscellaneous 14807-96-6, Micro Ace K1, uses and miscellaneous  
RL: USES (Uses)  
(potassium silicate **coatings** contg. fibrous inorg. powder and, for nonplastic substrates)

IT 7429-90-5, **Aluminum**, uses and miscellaneous 11109-50-5  
RL: USES (Uses)  
(potassium silicate **coatings** for)

L46 ANSWER 18 OF 30 WPIX (C) 2003 THOMSON DERWENT

AN 1991-191075 [26] WPIX

DNC C1991-083016

TI Blast furnace loading appts. prodn. - using highly exothermic charge for filling groove of **bell** and hopper, and **coated** with material not taking part in thermal synthesis.

DC M24

IN OLYANENKO, V N; RAUROV, V V; RUDENKO, A A

PA (DNMW) DNEPR METAL WKS

CYC 1

PI SU 1583446 A 19900807 (199126)\*

ADT SU 1583446 A SU 1988-4376597 19880208

PRAI SU 1988-4376597 19880208

IC C21B007-18

AB SU 1583446 A UPAB: 19930928  
Longer service life of the **bell** unit for blast furnace top is ensured by deposition of a **wear-resistant coating** by filling the recesses of the **bell** and of the hopper with highly exothermic charge. The outside of the latter is coated with a material that does not enter into the thermal synthesis process. The **bell** and hopper are brought together to ensure contact of the recess filled with the charge to initiate the self-propagating

high-temp. synthesis of the charge by heating the **bell** and the hopper. After hardening of the melt, the **bell** and hopper are subjected to relative shift.

The depth and width of the recesses (3,4) at the contact bands of the **bell** and hopper (1,2) correspond to the sizes of the **wear resistant** charge. The exothermic reaction ensures fusion of the **coating** charge (5,6) filling the recesses with the overlays (7,8) not reacting with the charge during the synthesis. The assembly is heated in a furnace held at the upper critical temp., followed by ignition, while the indifferent layer is formed with Al<sub>2</sub>O<sub>3</sub>, Cr<sub>2</sub>O<sub>3</sub>, MgO or graphite. The highly exothermic charge is based on oxides of transition metals and metals of the group Fe, Al, and non-metals such as C, B and Si.

ADVANTAGE - The extended mean service life of the loading appts in the blast furnace reduces the stock of exchange part to be held and extends the periods between consecutive servicing. Bul.29/7.8.90 @ (3pp Dwg.No.1/1)@

FS

CPI

FA

AB

MC

CPI: M24-A05

L46 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1991:538266 HCAPLUS

DN 115:138266

TI The influence of **titanium** dioxide pigments on **coatings** applied by high-speed **electrostatic bell**

AU Melville, Iain

CS Tioxide UK Ltd., UK

SO FATIPEC Congress (1990), 20th, 37-40

CODEN: FAPVAP; ISSN: 0430-2222

DT Journal

LA English

CC 42-6 (Coatings, Inks, and Related Products)

AB **Electrostatic bell** speed, voltage, **paint**

-feed rate, and solvents affect the final appearance of automobiles **painted** by the tittle process. The loss in gloss and distinctness of image caused by the **electrostatic bell** probably arises from TiO<sub>2</sub> flocculation.

ST **titanium** dioxide gloss distinctness **electrostatic**;

**electrostatic bell coating** automobile pigment

IT Automobiles

(**coating** for, high-speed **electrostatic-bell**

technique for, pigment and processing conditions in relation to)

IT **Coating** process

(**electrostatic, bell**, for automobiles, pigment and processing conditions in relation to)

IT 13463-67-7, **Titanium** dioxide, uses and miscellaneous

RL: USES (Uses)

(pigments, in **electrostatic bell coating**

of automobiles, final appearance in relation to)

L46 ANSWER 20 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1987:603639 HCAPLUS

DN 107:203639

TI Primer **coating** of **aluminum** or **aluminum** alloy sheet

IN Iwama, Tetsuji; Katsumata, Tsuyoshi; Nishijima, Yuzo; Takeuchi, Isao

PA Mitsubishi Aluminum Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent  
 LA Japanese  
 IC ICM C23C022-66  
 CC 56-6 (Nonferrous Metals and Alloys)  
 Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62124282	A2	19870605	JP 1985-261317	19851122
	JP 07081194	B4	19950830		
PRAI	JP 1985-261317		19851122		

AB The cold-rolled **Al** or **Al** alloy sheet for deep forming into containers is coated with a primer layer without the necessity of an anchor layer to improve **paintability**. The alloy sheet is treated with a neutral or basic soln. to form a hydroxide film, coated with a silicate soln., and then soft-annealed to form the primer layer. Thus, a degreased sheet of JIS 1200 H18 **Al** was dip-coated (.apprx.1 mg/dm<sup>2</sup>) in an aq. soln. (.apprx.85, pH 10.5) contg. 200 ppm NaOCl and then in aq. 1.5% water glass soln. (pH 11.4, 80.degree.) for .apprx.0.2 mg (as Si)/dm<sup>2</sup>, dried at 150.degree., and annealed 13 h in air at 220.degree.. The treated sheet was bake-coated (.apprx.120 mg/dm<sup>2</sup>) with Vinylorganosol 8510-J50M EXP. 165, and pressed into **cups**. The layer-adhesion strength of the **cups**, before or after dipping 30 min in boiling water, was 6.5 or 5.0 vs. 5.0 or 2.5 kg/15-mm width, resp., when the hydroxide **coating** was eliminated.

ST primer **coating aluminum** sheet **paintability**;  
 sodium hypochlorite **coating aluminum** alloy; water  
 glass **coating aluminum** alloy

IT **Coating** process  
 (primer, of cold-rolled **aluminum** alloy sheet, for anchor-free  
 layer)

IT **Aluminum** alloy, base  
 RL: USES (Uses)  
 (primer **coating** sheet of, for improved **paintability**  
 )

IT 111214-35-8  
 RL: USES (Uses)  
 (bake **painting** with, of **aluminum** sheet free  
**cups**, anchor-free primer **coating** for)

IT 7429-90-5, **Aluminum**, uses and miscellaneous 39323-99-4  
 RL: USES (Uses)  
 (primer **coating** sheet of, for improved **paintability**  
 )

L46 ANSWER 21 OF 30 WPIX (C) 2003 THOMSON DERWENT  
 AN 1985-192687 [32] WPIX  
 DNN N1985-144448 DNC C1985-083960  
 TI **Paint** compsn. for **bell**-type **coating** machine  
 - contains base resin material and **titanium** di oxide having  
 specified particle size.

DC A82 G02 P42  
 PA (NIOF) NIPPON OILS & FATS CO LTD  
 CYC 1

PI JP 60118766 A 19850626 (198532)\* 4p  
 ADT JP 60118766 A JP 1983-224417 19831130  
 PRAI JP 1983-224417 19831130

IC **B05D001-04; B05D007-24; C09D005-46**  
 AB JP 60118766 A UPAB: 19930925  
 Compsn. consists of 100 pts.wt. base resin material (solid) and 10-200  
 pts.wt. **titanium** dioxide whose ave. particle size is less than

0.22 microns (pref. more than 0.01 microns and rutile type).

Base resin material is e.g. acrylic-, polyester-, alkyd-, epoxy- and silicon- resin. Both solvent-type and water-soln.-type are used. Crosslinking agent includes melamine-, benzoguanamine-, phenol-, toluene- and xylene- resins, blocked isocyanate, etc.

Prepn. of the **paint** compsn. comprises: adding fine grain **titanium** dioxide and opt. other colouring pigments, fillers, rust-preventive pigments, etc. to the base resin material soln. obtd. by dissolving solvent-type base material in aromatic hydrocarbon, aliphatic hydrocarbon, esters, ketones, alcohols, etc. (for solvent-type **paint**) or by neutralising water-soluble base material with ammonium, amine, etc. (for water-soluble-type **paint**); and mixing and dispersing by roll mill, ball mill, sand grind mill, high speed stirring machine, etc. to obtain pigment base. Then opt. crosslinking agent, floating inhibitor, colour sepn. inhibitor, gas checking agent, etc. are added to the obtd. pigment base, mixing and dispersing being carried out with above mentioned machines.

0/0

FS CPI GMPI

FA AB

MC CPI: A08-E02; A12-B01; G02-A02B; G02-A03

L46 ANSWER 22 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH

AN 203214 WSCA DN 85-03214

TI New bicycle finishing plant of Hercules.

AU ANON

SO Ind.-Lack.-Betrieb 1984, Vol 52 No 11, 423-7.

DT Journal

LA German

AB Technical details of the installation are discussed, including use of high-speed electrostatic discs rather than **bells**. Powder **coatings** were deemed impracticable for a factory producing 1000 bicycles per day. Other procedures, including quality control testing, are outlined. (In German)

CC 49 Pretreatment and Application

IT Bicycles: finishing, plants for; Electrostatic Spraying: high-speed discs, bicycles; Painting: bicycles, plants for

CO HERCULES-WERKE GMBH

L46 ANSWER 23 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1983:36392 HCAPLUS

DN 98:36392

TI Powdered ethylene polymers for **electrostatic coating** of paper containers

PA Asahi Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C09D005-00; C08J003-12; D21H001-40

ICA B05D001-06; B31B001-60

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)  
Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 57133167	A2	19820817	JP 1981-18995	19810213
PRAI	JP 1981-18995		19810213		

AB The ethylene polymers have melt index 1-20 g/10 min, powder rest angle 27-40.degree., size distribution 50% of granules 20-150 .mu. and >90% of

granules <200 .mu., bulk d. 0.30-0.50, and spherical or oval shapes and are prep'd. by suspension polymn. Thus, internal **coatings** on laminated **cups** prep'd. from ethylene-propylene copolymer [9010-79-1] (d. 0.960 g/cm<sup>3</sup>, melt index 4 g/10 min, rest angle 34.degree., bulk d. 0.46 g/cm<sup>3</sup>, and granule size 1% >295 .mu., 5% 180-295 .mu., 9% 140-180 .mu., 23% 105-140 .mu., 41% 75-105 .mu., 16% 50-75 .mu., and 4% 30-50 .mu.) had good sealing properties, good smoothness, and unevenness 0.2 g, compared with poor, poor, and 1.2, resp., for **coating** with Neozex 4330P (polyethylene).

ST ethylene propylene copolymer powd **coating**; **cup** powder **coating** ethylene copolymer; container powder **coating** ethylene copolymer

IT Paper

(containers, **coatings** for, powd. ethylene copolymers as)

IT **Coating** materials

(powd. ethylene copolymers, on paper containers)

IT Dishes

(**cups**, **aluminum**-paper-polyethylene laminates, **coatings** on, powd. ethylene polymers as)

IT 9010-79-1 25087-34-7 25213-02-9

RL: USES (Uses)

(**coatings**, powd., on paper containers)

IT 7429-90-5, uses and miscellaneous

RL: USES (Uses)

(foils, laminates with polyethylene and paper, for containers, **coatings** on, powd. ethylene copolymers as)

IT 9002-88-4

RL: USES (Uses)

(laminates with **aluminum** foil and paper, for containers, **coatings** on, powd. ethylene copolymers as)

L46 ANSWER 24 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH

AN 143501 WSCA DN 82-03501

TI Applying organic **coatings**. Rotational atomisers: **bells** and discs.

AU ZIEGEWEID J E

SO Metal Fin. 1981, Vol 79 No 9, 75-80.

DT Journal

LA English

AB Bell and disc rotational atomisers for use in electrostatic spraying are described.

CC 49 Pretreatment and Application

IT BELL/DISCS FOR ATOMISATION IN ELECTROSTATIC SPRAYING

ST ROTATIONAL; COATING (PRODUCT); APPLYING (COVERING ETC); DISC; BELL; USE; SPRAYING; ORG; ELECTROSTATIC; ATOMISER

L46 ANSWER 25 OF 30 HCAPLUS COPYRIGHT 2003 ACS

AN 1976:123508 HCAPLUS

DN 84:123508

TI Metallic finish **coating** compositions

IN Maruyama, Tsutomu; Kato, Tadahiro; Ogawa, Masao

PA Nippon Electrocure Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC B05D

CC 42-2 (Coatings, Inks, and Related Products)

Section cross-reference(s): 55

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 51008341	A2	19760123	JP 1974-79422	19740711
PRAI	JP 1974-79422		19740711		
AB	Wet-on-wet-coatable and electron-curable primers, middle layer <b>coatings</b> (optional), and top <b>coating</b> compns. were prepd. Thus, 100 parts of an acrylic resin varnish comprising Et acrylate-glycidyl methacrylate-methacrylic acid-methyl methacrylate copolymer (I) [40989-39-7] 40, Me methacrylate [80-62-6] 20, Bu methacrylate [97-88-1] 20, 1,6-hexanediol dimethacrylate [6606-59-3] 10, and 2-ethylhexyl methacrylate [688-84-6] 10 was dispersed with 10 parts phthalocyanine blue pigment to give a blue enamel, which (100 parts) was mixed with an <b>Al</b> paste (naphtha soln. contg. 66% <b>Al</b> ) 5, a cellulose acetate butyrate soln. contg. 80% Me methacrylate 30, Me methacrylate 40, Bu methacrylate 40, 2-ethylhexyl methacrylate 15, 1,6-hexanediol diacrylate [13048-33-4] 5, and a com. phosphate 0.4 part to give a blue metallic <b>coating</b> compn. (viscosity Ford Cup 4 18 sec). The <b>coating</b> compn. was <b>electrostatically</b> spray coated on a steel sheet, and set 3 min. An acrylic resin (I) 45, Me methacrylate 25, 2-ethylhexyl acrylate [103-11-7] 10, iso-Bu acrylate [106-63-8] 10, 1,6-hexanediol dimethacrylate 8, trimethylolpropane trimethacrylate [3290-92-4] 2, and a silicone agent 0.1 part were mixed to give a clear <b>coating</b> compn., which was coated on the metallic <b>coating</b> film, and exposed to electron beams (10 Mrad) to give a cured metallic finish <b>coating</b> film.				
ST	acrylic resin <b>coating</b> compn; irradi curing resin <b>coating</b> ; metallic finish resin <b>coating</b> ; enamel acrylic resin				
IT	<b>Coating materials</b> (acrylate monomers-acrylic polymer, wet-on-wet coatable and electron-curable)				
IT	Electron beam, chemical and physical effects (crosslinking by, of acrylic <b>coatings</b> )				
IT	Crosslinking (of acrylic <b>coatings</b> , by electron beams)				
IT	80-62-6	97-88-1	103-11-7	106-63-8	688-84-6 3290-92-4 6606-59-3
	13048-33-4				
	RL: TEM (Technical or engineered material use); USES (Uses) ( <b>coatings</b> , contg. acrylate monomers and acrylic polymers, wet-on-wet coatable and electron-curable)				
IT	40989-39-7				
	RL: TEM (Technical or engineered material use); USES (Uses) ( <b>coatings</b> , contg. acrylate monomers, wet-on-wet coatable and electron-curable)				
L46	ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2003 ACS				
AN	1975:37337 HCAPLUS				
DN	82:37337				
TI	Light-sensitive structure				
IN	Fromson, Howard A.				
SO	U.S., 9 pp. Division of U.S. 3,773,514. CODEN: USXXAM				
DT	Patent				
LA	English				
IC	G03C				
NCL	096035100				
CC	74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)				
FAN.CNT	3				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3839037	A	19741001	US 1973-380019	19730717

US 3773514 A 19731120 US 1971-171052 19710812  
 FR 2148643 A1 19730323 FR 1972-29207 19720811  
 FR 2148643 B1 19791012  
 AT 7206960 A 19751115 AT 1972-6960 19720811  
 AT 331271 B 19760810  
 PRAI US 1971-171052 19710812

AB Light-sensitive structures for use in the prepn. of presensitized lithog. plates having a hard, durable, and **wear-resistant coating** thereon that requires no addnl. solvents or processing to ready the plate for the press are described. The structure consists of a support having coated thereon a light-sensitive layer having one soly. in relation to the solvent before exposure to actinic radiation, and another soly. in relation to the solvent after exposure with a tough, **wear-resistant**, preferably vapor deposited, porous metallic layer of Moh's hardness .gtoreq.1 which is transparent to actinic radiation and permeable to the solvent used in developing the light-sensitive layer. Thus, an anodized **Al** support was presensitized with a diazo resin and then placed in a **bell jar coater** where Au was vapor deposited on the plate. The Au **coating** was 35% transparent and, after exposure through a test negative, the plate was developed using H2O and gum arabic. The plate was then locked on the roll of an offset-type lithog. press and used to obtain prints of good quality.

ST gold coated presensitized plate; lithog plate gold coated  
 IT Lithographic plates  
 (presensitized, with vapor deposited transparent and porous metallic **coatings** for improved durability)

IT 7440-22-4, uses and miscellaneous 7440-50-8, uses and miscellaneous  
 7789-75-5, uses and miscellaneous 11142-87-3  
 RL: USES (Uses)  
 (**coatings**, transparent and porous vapor-deposited, on presensitized lithog. plates for improved durability)

IT 7440-57-5, uses and miscellaneous  
 RL: USES (Uses)  
 (**coatings**, transparent andporous vapor-deposited, on presensitized lithog. plates for improved durability)

L46 ANSWER 27 OF 30 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1970:138354 HCAPLUS  
 DN 72:138354  
 TI Phthalocyanine metal compounds  
 IN Sharp, James H.; Miller, Roger L.; Lardon, Marcel A.  
 PA Xerox Corp.  
 SO Ger. Offen., 22 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC C09B  
 CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1944021	A	19700305	DE 1969-1944021	19690829
	BR 6909984	A0	19730412	BR 1969-209984	19690620
	FR 2016641	A5	19700508	FR 1969-29016	19690825
	GB 1268422	A	19720329	GB 1969-1268422	19690825
	BE 737988	A	19700226	BE 1969-737988	19690826
	SE 349315	B	19720925	SE 1969-11948	19690828
	ES 371011	A1	19711016	ES 1969-371011	19690829
	NL 6913309	A	19700303	NL 1969-13309	19690901
	US 3862127	A	19750121	US 1972-271868	19720714



PRAI US 1968-756362 19680830  
US 1968-756365 19680830  
US 1968-765365 19680830  
US 1969-847381 19690804

AB Polymorphic phthalocyanines (Pc) were sublimed quickly to give X-form Pc derivs. (U.S. 3,357,989) which are useful in electrophotography and have high brilliance, resistance to recrystn. by heat and solvents, and light stability. Thus, 0.5 g .alpha.-CuPc in a heated Mo crucible was vapor deposited at 10-3 mm Hg in 2 min on an optical Mylar foil (Type D, du Pont) to give X- CuPc. A **coating** compn. consisting of Epon 1007 70 in Et Cellosolve 80, Methy lon (a PhOH resin) 40, Uformide F-240 (a urea-HCHO resin) 9, and x-CuPc 20 parts was **coated** (40-.mu. thick) on an Al plate, cured 2 hr at 180.degree., charged with a corona discharge (600 V), exposed (10 sec, 43 lx) under a black and white diapos. by using an enlarger (f/4.5) and a W filament lamp (color temp. 2950.degree.K), and the latent **electrostatic** image developed according to the process in U.S. 2,618,551 and transferred to paper plates to give a high-quality image.

ST phthalocyanines electrophotog; electrophotog phthalocyanines; copper phthalocyanines electrophotog

IT Photography  
(electro-, photoconductors for, transition metal phthalocyanines in)

IT Cobalt, with phthalocyanine  
Copper, with phthalocyanine  
Phthalocyanine, transition metal complexes  
Zinc, with phthalocyanine  
RL: USES (Uses)  
(photoconductors, for electrophotography)

L46 ANSWER 28 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH  
AN 560405 WSCA DN 03-00405  
TI **Paint** composition.  
PA MITSUBOSHI BELTING CO  
SO Japanese Unexamined Patent, 5 pp: Jap. Pat. Abs (Unexamined) 2002, No 23, Gp G, 265.  
PI JP 2001342380  
DT Patent  
LA Japanese  
AB The **paint** is used to **coat** glass **cups** and bottles to make obscured glass, and for surface protecting or colouring tiles, etc. The composition is inexpensive and does not involve hydrogen fluoride, projecting sand, etc. The **paint** comprises an alkali silicate, **aluminium** oxide powder and a synthetic sodium and magnesium silicate not containing lithium.

CC 64 Paints, Etc for Other Specific Uses

IT Glass: **coatings**, silicates (org/inorg) **aluminium** oxide; Silicate **Paints**: for glass, silicates (org)/silicates (inorg); Tiles: **coatings**, silicates (org/inorg)/**aluminium** oxide; Silicates: organic, **coatings** for glass/tiles; Magnesium Silicate: **coatings**, for glass/tiles

ST glass substrate; glass bottle

CN sodium silicate; hydrogen fluoride; alkali silicate; **aluminium** oxide; magnesium silicate; lithium

L46 ANSWER 29 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH  
AN 308195 WSCA DN 90-08195  
TI Perfumed coatings.  
PA TOYO KOGYO CO  
SO Japanese Unexamined Patent, 5 pp: Jap. Pat. Abs (Unexamined) 1990, Vol 90 No 3, Gp G, 10.

PI JP 01297181  
DT Patent  
LA Japanese  
AB Perfumed coatings are applied to articles by simultaneously spraying a solvent-borne coating and an org. solvent solution of cyclodextrin containing a perfume. The method ensures uniform distribution of perfume throughout the coating.  
CC 64 Paints, etc. for other Specific Uses  
IT Perfumes: cyclodextrins &, spraying simultaneous coatings; Cyclodextrins: perfumes &, spraying simultaneous **coatings**; Spraying: **bells**/discs, perfumes/cyclodextrins/coatings  
ST rotating bell  
CN CYCLODEXTRIN

L46 ANSWER 30 OF 30 WSCA COPYRIGHT 2003 PAINT RESEARCH  
AN 224213 WSCA DN 86-04213  
TI **Paint** composition for **bell**-type **coating** machine.  
PA NIPPON OILS & FATS CO  
SO Japanese Unexamined Patent, 4 pp: Jap. Pat. Gaz. 1985, Vol 85 No 32, Gp G, 4.  
PI JP 60118766  
DT Patent  
LA Japanese  
AB The compsn, which may be solvent- or water-borne, contains **titanium** dioxide with an average particle size of less than 2 microns, and preferably of the rutile type.  
CC 32 Paints, Varnishes and Lacquers - General  
IT **Titanium** Dioxide: **coatings**, for spraying; **Electrostatic** Spraying: **titanium** dioxide-containing compsns  
ST **electrostatic spraying**; **water-borne coating**; **solvent-borne coating**; application  
CN **TITANIUM DIOXIDE**